

What is claimed:

- 1 1. An obturator system for filling an endodontically prepared tooth root canal comprising:  
2 an elongated heat conductible shaft having proximal and distal end portions;  
3 filler material on said shaft distal end portion, said shaft with the filler material thereon  
4 being insertable into a tooth root canal; and  
5 a heat source associated with and serving to selectably heat said shaft.
- 1 2. An obturator system according to Claim 1 wherein said heater employs flowing electrical  
2 current through a portion of said shaft.
- 1 3. An obturator system according to Claim 1 wherein said heat source employs electric  
2 inductance heating of said shaft.
- 1 4. An obturator system according to Claim 2 wherein said heat source includes:  
2 a first conductor attached at a first location to said shaft;  
3 a second conductor attached at a second spaced apart location to said shaft; and  
4 circuitry for applying voltage to said first and second conductors.

- 1 5. An obturator system according to Claim 3 wherein said heat source includes:  
2 a coil of wire surrounding a portion of said shaft proximal portion; and  
3 circuitry for supplying alternating current to said coil of wire.
- 1 6. An obturator system according to Claim 1 wherein said heat source includes:  
2 a generator impinging electromagnetic wave energy onto said shaft.
- 1 7. An obturator system according to Claim 1 including:  
2 a signal generating temperature sensor affixed to said shaft.
- 1 8. An obturator system according to Claim 7 including:  
2 circuitry attached to said temperature sensor employed to control said heat source.
- 1 9. An obturator system according to Claim 1 wherein said shaft is of metal.
- 1 10. An obturator system according to Claim 1 wherein said shaft is of plastic having electrically  
2 conductive material admixed therein.
- 1 11. An obturator system according to Claim 1 wherein said shaft has an inner electrically  
2 conductive portion and an outer electrically conductive portion separated for a  
3 portion of the shaft length by a layer of insulation said shaft being heatable by flowing  
4 current through said inner and outer electrically conductive portions.

1      12.      An obturator system according to Claim 1 wherein said heat source employs sonic energy.

1      13.      An obturator system according to Claim 1 wherein said heat source employs piezoelectric  
2              energy.

1      14.      A method of filing an endodontically prepared root canal comprising:  
2              applying filler material to a distal portion of an elongated shaft formed of heat  
3              conducting material;  
4              inserting said proximal portion of said shaft having said filler material thereon into the  
5              root canal;  
6              heating said shaft to decrease the surface tension of said filler material; and  
7              removing said shaft leaving said filler material in the root canal.

1      15.      A method of filing a root canal according to Claim 14 wherein said step of heating said shaft  
2              includes heating the shaft with electrical energy.

1      16.      A method of filing a root canal according to Claim 14 includes applying alternating  
2              electrical current to a coil surrounding a portion of said shaft.

1      17.      A method of filling a root canal according to Claim 14 wherein said step of heating said shaft  
2              includes applying electromagnetic energy to said shaft.

1 18. A method of filling a root canal according to Claim 14 includes applying an electrical  
2 potential to said shaft to cause current to flow through at least a portion of said shaft.

1 19. A method of filling an endodontically prepared root canal according to Claim 14 wherein said  
2 shaft has an inner electrically conductive portion and an outer electrically conductive portion  
3 separated for a portion of the shaft length by a layer of insulation and wherein the step of  
4 heating said shaft includes flowing current through said inner and outer conductive portions.

1 20. A method of filling an endodontically prepared root canal according to Claim 12 wherein said  
2 step of heating said shaft is accomplished by employing sonic energy.

1 21. A method of filling an endodontically prepared root canal according to Claim 13 wherein said  
2 step of heating said shaft is accomplished by employing piezoelectric energy.